



Transitioning to Performance Tasks as the *Norm*

Anne Marie Montgomery
(Steve Dunlap)

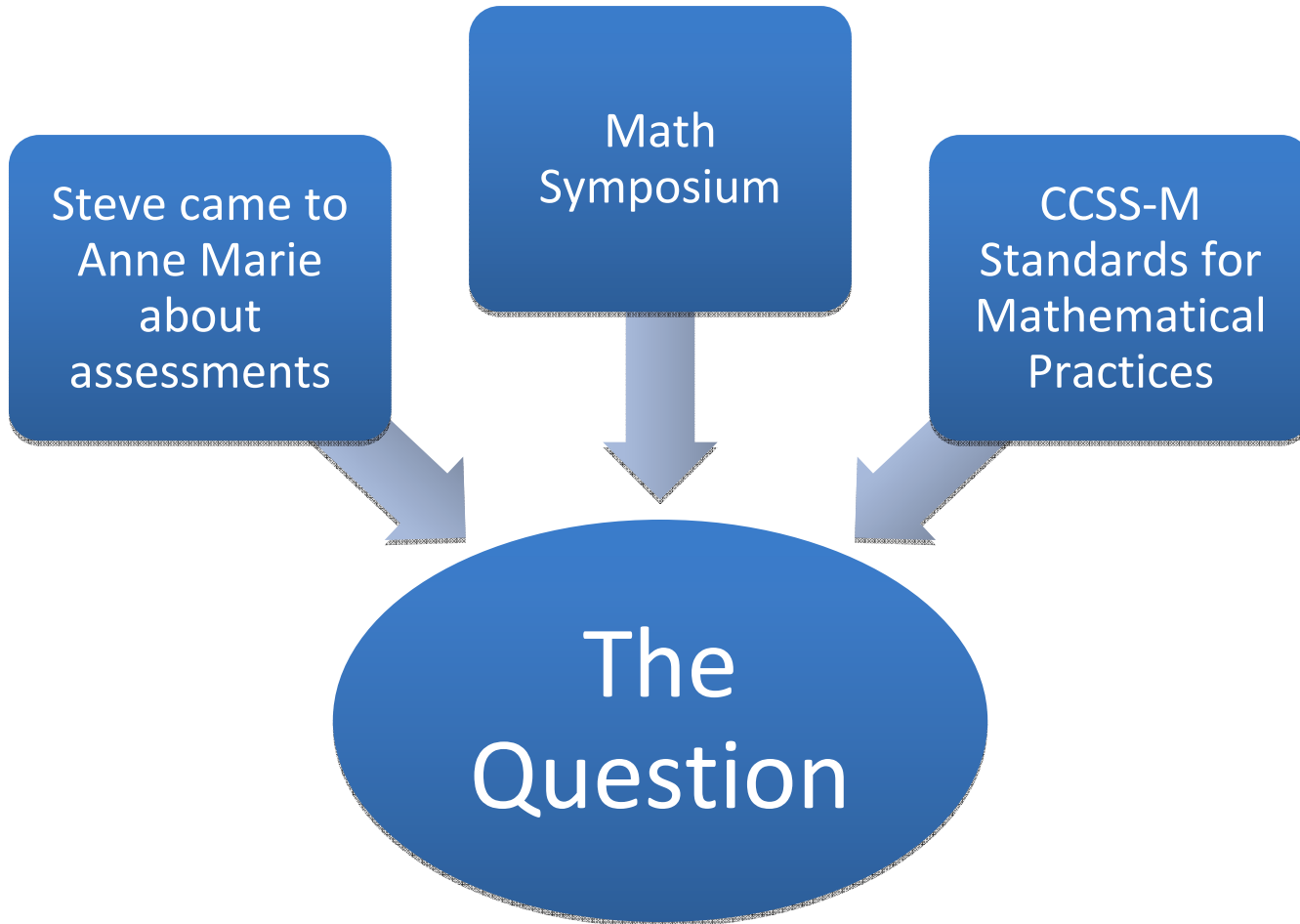
MaThink 2013



This session

- Quick history of assessment project in RUSD
- What we learned
- Consider how to incorporate performance tasks as routine instructional practice
- Explore resources

The Story

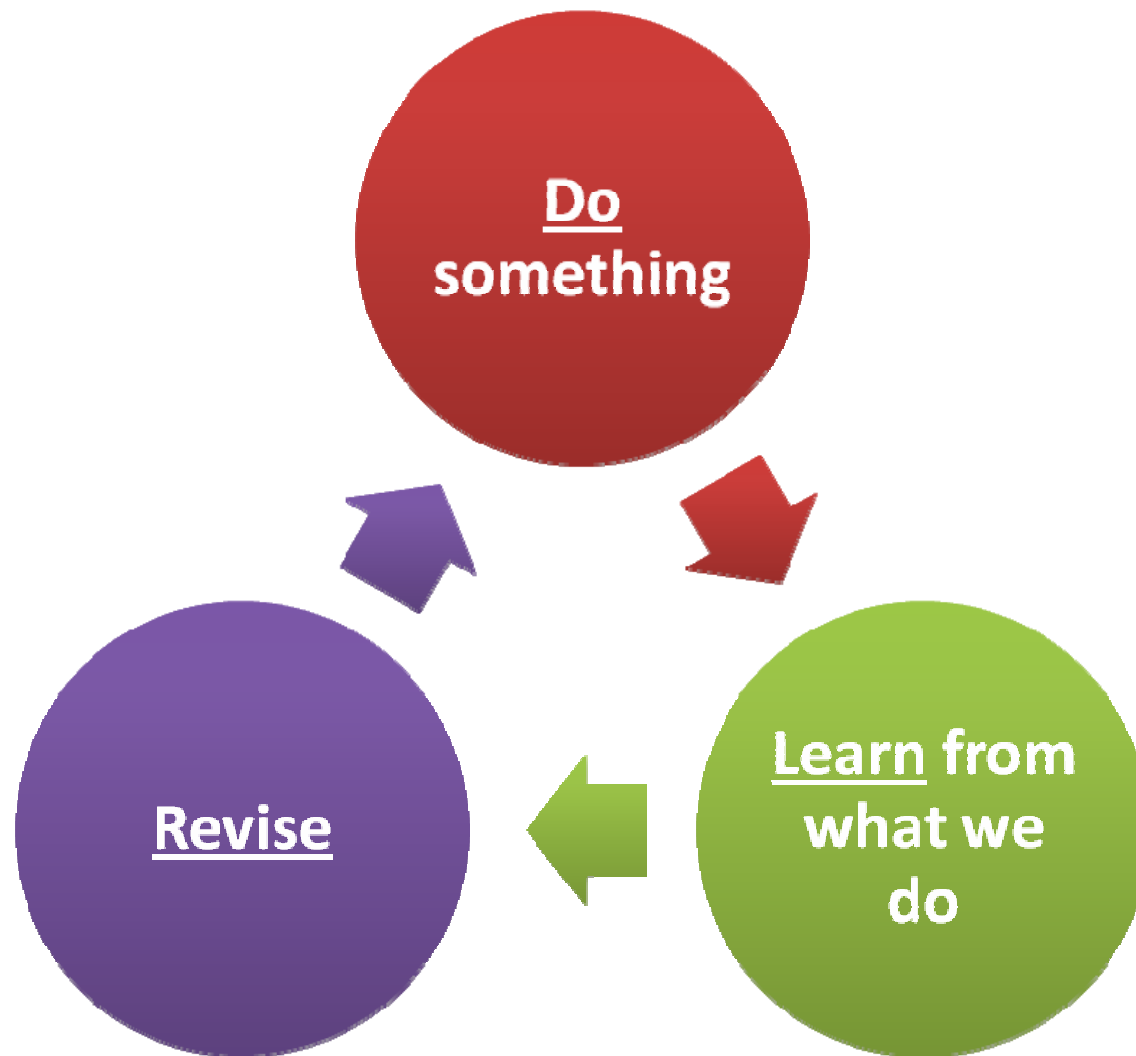


**The
Question**



**How can we build
capacity in our district?**

Our Process



Purposes of ovation

- For students to engage in the Common Core Standards for Mathematical Practices
- For teachers to consider how changes in assessment should impact instructional practices
- For students and teachers to focus on process, i.e. critical thinking, depth and complexity, and communication in mathematics
- For teachers to reflect and refine instruction with respect to the above

Quotes from chapter on assessment in DRAFT Framework

- Traditional paper-and-pencil and “high-stakes” tests have prompted teachers to emphasize basic, factual information and to provide few opportunities for students to learn how to apply knowledge. [Fuchs, et al, p. 611]
- Assessment in mathematics must go beyond focusing on how well a student uses a memorized algorithm or procedure ... (NCTM, 1995). [Suurtamm, p. 401]
- The focus of assessment must then shift towards assessing content knowledge *and* practices as opposed to simply assessing content (“what students know how to do”).
- Assessments should ask for variety in what students produce, for example, answers and solutions, arguments and explanations, diagrams and mathematical models, to help identify both mathematics content and mathematical practice learning.

What we did (in a nutshell)

- Recruited volunteer teachers
- Conducted sessions to “set the stage”
- Administered “performance tasks” to students
- Collaboratively scored PTs using rubric
- Collected and analyzed data
- Adjusted instruction (ongoing)



Mathovation 1.0 Fall 2012 – Spring 2013

#1
Orientation
(1/2-day)



#2 Intro to
Perf Tasks
(1/2-day)



#3 Scoring
Day PT1



#4
Progress
and
Check-in
(1/2 day)



#5 Scoring
Day PT2



#6 Scoring
Day PT3



Mathovation β Spring 2012

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**#5
Create/refine
extended
response task
and plan
instruction
accordingly**



**#6
Share student
work and
data; Make
recmndations
for 2013-2014**



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What we learned from Mathovation β



Mathovation revealed necessity of moving forward with **long term project** that continued with assessment, but also incorporated:

- **Varied approaches** to the mathematics being taught and how students interact with the mathematics and each other
- **Rich mathematical tasks** and the ways students approach them
- **Strategies** to incorporate SMPs into students' learning experiences

How we started...again (Mathovation 1.0)



- Familiarized 30 fifth, sixth, and seventh grade teachers with Mathovation β (doubled number of teachers, expanded grade levels)
- Teachers experienced collaborative task
- We modeled being “supportive without intervening” – teachers debriefed the experience
- Teachers administered collaborative task, observed students, adjusted instruction
- Teachers experienced “Performance Task” and rubric scoring
- Teachers administered task, then scored assessments together
- Analyzed data - moving towards changing *instruction* in regards to **varied approaches, rich tasks, strategies**

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Revise

Mathovation β Spring 2012

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Let's talk about assessment

43026



Jamal is filling bags with sand. All of the bags are the same size. Each bag must weigh less than 50 pounds. One sand bag weighs 57 pounds and another sand bag weighs 41 pounds. Explain whether Jamal can pour sand from one bag into the other so that the weight of each bag is less than 50 pounds.

Similarities and Differences

Performance Task

- Non-routine
- Student generates response in entirety
- Multiple methods allowed/encouraged
- One correct mathematical answer
- Rubric scored
- Analysis of student work is intensive, multiple standards addressed

Chapter/Topic Tests

- Items are similar to lesson/homework items
- Multiple choice
- Method not seen unless teacher requires work shown
- Each item scored right/wrong by scanning
- Data analysis by standard is straightforward due to structure

Student Voice

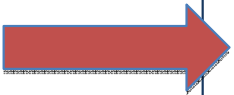
From Spring
2012 student
interview –
after taking
Performance
Task



From Oct 2012
5th grade
Performance
Task

Eric is playing a video game. At a certain point in the game, he has 31500 points. Then the following events happen, in order:

- He earns 2450 additional points.
- He loses 3310 points.
- The game ends, and his score doubles.



The Rubric

- *Assessing for Higher Order Thinking – Mathematics Problem Solving Scoring Guide*
- Aligned rubric with SMPs
- Evolved over time

6th Grade PT #2

(It is really an extended
response task, not a
performance task)




DO THE PERFORMANCE TASK

(YES, YOU MAY WORK TOGETHER)

Answers

- 1) c. $\frac{7}{10}$
- 2) d. 7
- 3) 4 dozen



How do you think
they did?

Spring 2013 Data – 6th Grade PT #2

N=243

Right/Wrong

- 1) 79% correct
- 2) 88% correct
- 3) 15% correct

Rubric

1	2	3	4	blank
70%	22%	3%	4%	1%

Student Work

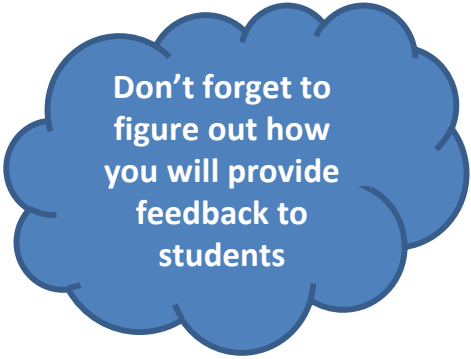
- What do you see, mathematically speaking??

P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11
Right	Right	Right	Right	Right	Right	Wrong	Wrong	Wrong	Wrong	Wrong
2	4	3	4	3	3	1	1	1	1	1



Do
something


Where do I begin?



Don't forget to
figure out how
you will provide
feedback to
students

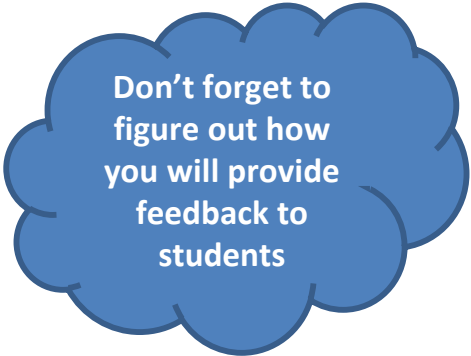
- **Emerging**

- Pick a task related to something you are teaching and give it to groups of students to work on together (low stakes)
- observe students' interaction with the task
- be supportive without intervening



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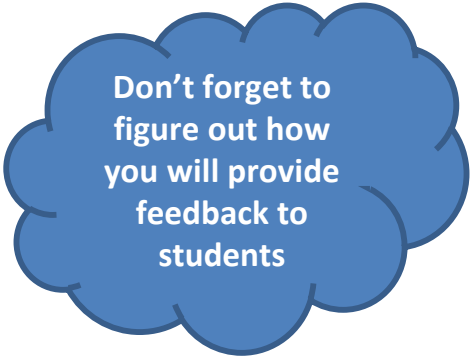
- **Developing**

- Do the elements in the previous bullet
- Design a learning experience (lesson) in which students are using the SMPs in an observable way
- use a group/individual task as the assignment, sharing the rubric or scoring guide with students (medium stakes)



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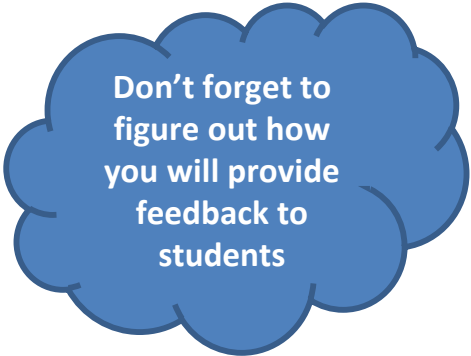
- **Proficient**

- Do the elements in the previous bullets
- Consider expanding the learning experience – from a single lesson in a unit to designing a whole unit
- Use an individual task as the assessment (medium high stakes)



Do
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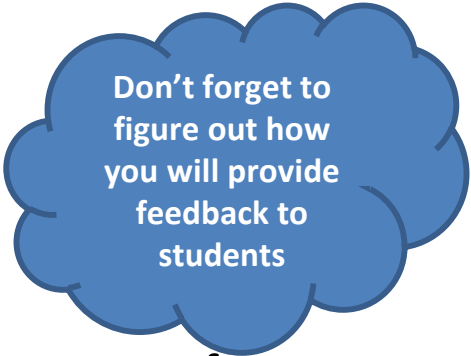
- **Exemplary**

- Invite colleagues to come and see what these types of learning experiences and assessments look like in action
- Calibrate and score student work together



Do
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- **Emerging**
 - Pick a task related to something you are teaching and give it to groups of students to work on together (low stakes)
 - observe students' interaction with the task
 - be supportive without intervening
- **Developing**
 - Do the elements in the previous bullet
 - Design a learning experience (lesson) in which students are using the SMPs in an observable way
 - use a group/individual task as the assignment, sharing the rubric or scoring guide with students (medium stakes)
- **Proficient**
 - Do the elements in the previous bullets
 - Consider expanding the learning experience; make a unit
 - Use an individual task as the assessment (medium high stakes)
- **Exemplary**
 - Invite colleagues to come and see what these types of learning experiences and assessments look like in action
 - Calibrate and score student work together

Resources

<https://mathovation.com>

Thank you

Please fill out the evaluation form!